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| APPLICATION NO.               | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-------------------------------|-------------|----------------------|---------------------|------------------|
| 09/996,946                    | 11/30/2001  | Tacko Hayase         | 0445-0313P          | 3991             |
| 2292                          | 7590        | 03/13/2006           |                     |                  |
| BIRCH STEWART KOLASCH & BIRCH |             |                      | EXAMINER            |                  |
| PO BOX 747                    |             |                      | COLE, ELIZABETH M   |                  |
| FALLS CHURCH, VA 22040-0747   |             |                      | ART UNIT            | PAPER NUMBER     |
|                               |             |                      | 1771                |                  |

DATE MAILED: 03/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |                        |                     |  |
|------------------------------|------------------------|---------------------|--|
| <b>Office Action Summary</b> | <b>Application No.</b> | <b>Applicant(s)</b> |  |
|                              | 09/996,946             | HAYASE ET AL.       |  |
|                              | <b>Examiner</b>        | <b>Art Unit</b>     |  |
|                              | Elizabeth M. Cole      | 1771                |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on \_\_\_\_\_.
- 2a) This action is FINAL.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-11, 13-15 and 18-28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-11, 13-15, 18-28 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) All    b) Some \* c) None of:
    1. Certified copies of the priority documents have been received.
    2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) Interview Summary (PTO-413)  
Paper No(s)/Mail Date: \_\_\_\_\_.
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: \_\_\_\_\_.

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
2. Claims 1, 9-10, 13-15, 18 rejected under 35 U.S.C. 103(a) as being unpatentable over JP 2000-212866 as set forth in the previous action in view of either of JP 03-279452 or JP 02-112460. JP '866 differs from the claimed invention because JP '866 does not teach incorporating thin fibers into the wipe, (although JP '866 does teach fusion bonding the conjugate fibers at crossover points, which corresponds to the new limitation regarding the fusion bonding of the thick fibers). Both JP '460 and JP '452 teach that nonwoven wipes which comprise both thick and thin fibers have excellent tensile strength. See abstracts. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have incorporated fine fibers into the wipe of JP '866. One of ordinary skill in the art would have been motivated to incorporate the fine fibers into the nonwoven of JP '866 by the expectation that this would form a nonwoven having enhanced strength. With regard to the particular dtex and fiber length, although JP '460 and JP '452 disclose the fine fibers in terms of the diameter rather than the dtex, it appears that the fibers having a diameter of 0.1-8 microns would meet the claim limitation, and with regard to the length of the fibers, it would have been obvious to have selected the fibers so that the lengths of the fine and coarse fibers were similar or the same in order to facilitate the mixing of the two types of fibers. With regard to the limitation that the fabric comprises intersections of thick and thin fibers, since both JP '460 and '452 teach forming wipes from both thick and thin fibers, once the thin fibers were incorporated into the wipe of JP '866 the

bonding at crossover points would necessarily be present, especially since JP '866 teaches bonding at crossover points, (pages 29-30).

3. Claims 2 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 2000-212866 in view of either of JP 03-279452 or JP 02-112460 as applied to claims 1, 9-10, 13-15, 18 above, and further in view of WO 01/52713 to Kakiuchi et al as set forth in the previous action.

4. Claims 3-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 2000-212866 in view of either of JP 03-279452 or JP 02-112460 as applied to claims 1, 9-10, 13-15, 18 above, and further in view of Kobayashi et al, EP 926,288 as set forth in the previous action.

5. Applicant's arguments filed 12/29/05 have been fully considered but they are not persuasive.

6. With regard to the art rejection, Applicant argues that none of the references teach thick and thin fibers having the claimed length and dtex. However, JP '866 teaches fibers having a length of 3-25 mm and a fineness of 0.5-50 denier which would encompass the claimed dtex of the thick fibers. JP '866 also teaches bonding at the crossover points of the fibers. JP '866 differs from the claimed invention because it does not teach also adding thin fibers to the cleaning sheet. Both JP '460 and '452 teach mixing thin and thick fibers in order to form a cloth having improved tensile strength. Therefore, one of ordinary skill in the art, in view of the teaching of both JP '460 and '452 would have been motivated to include fibers having the claimed fineness in the airlaid nonwoven of JP '866. One of ordinary skill in the art would have been

motivated to make the fine fibers the same general length as the thick fibers which were already present in JP '866 in order to form a nonwoven wherein the two types of fibers could be easily mixed.

7. Applicant argues that none of the references teach the claimed number of tips of the thick fibers on the cleaning sheet. However, since JP '866 teaches a sheet made from fibers having the same length and fineness, the sheet of JP '866 would necessarily have the number of tips.

8. Applicant argues that JP '866 fails to teach the combination of thick and thin fibers with cellulosic fibers. However, JP "866 teaches the combination of thick fibers and cellulosic fibers. Both JP '460 and '452 teach adding the thin fibers as set forth above. Applicant argues that JP '460 and '452 are silent as to the presence of cellulosic fibers. However, JP '866 teaches this feature. JP '460 and '452 provide the teaching of adding the thin fibers to the nonwoven of JP '866 which already has the thick fibers and the cellulosic fibers.

9. Applicant argues that there is no motivation to employ the thin fibers as taught by JP '460 and '452 in the fabric of JP '866 because they are used for different purposes and the fabrics in JP '460 and '452 are meltblown rather than airlaid. However, JP '452 and '460 both teach that the material is useful as a wiper. With regard to the fabrics being meltblown, the abstracts do not seem to say that the fabrics are meltblown. Further, Applicant argues that JP '452 and '460 does not teach the thick fibers. However, JP '866 has the thick fibers.

10. With regard to claim 13, JP '866 teaches at claim 31 that the fibrous web comprising the cellulosic fibers and thermoplastic fibers can be laminated with another sheet such as a cotton fabric, (i.e., a cellulosic fabric).

11. Applicant's arguments regarding the 112 1<sup>st</sup> paragraph rejection is persuasive and that rejection is withdrawn.

12. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elizabeth M. Cole whose telephone number is (571) 272-1475. The examiner may be reached between 6:30 AM and 6:00 PM Monday through Wednesday, and 6:30 AM and 2 PM on Thursday.

Mr. Terrel Morris, the examiner's supervisor, may be reached at (571) 272-1478.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for

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published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

The fax number for all official faxes is (571) 273-8300.



Elizabeth M. Cole  
Primary Examiner  
Art Unit 1771

e.m.c